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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,040	11/27/2001	Sammy Mok	NNEX0003	9626

22862 7590 10/15/2003

GLENN PATENT GROUP
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MENLO PARK, CA 94025

EXAMINER

DUVERNE, JEAN F

ART UNIT	PAPER NUMBER
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2839

DATE MAILED: 10/15/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/980,040

Applicant(s)

MOK ET AL.

Examiner

Jean F. Duverne

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-- The MAILING DATE of this communication appears on the cover sheet with the correspond nc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-8 and 11-22 is/are rejected.
- 7) ☐ Claim(s) 3,4,9 and 10 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-2, 5-8, 11-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lum (EP patent application 0 681 186 A2) in view Grabbe et al (US patent 5,152,695).

Lum's device discloses an apparatus comprising a daughter printed board at 66 having a bottom and a top surface, an insulative substrate (64) a plurality of electrical connectors at 88 extending from the bottom to the top surface having electrical and mechanical connections, a substrate having a top and a bottom, probes at 68, contacts (84) with contact pads, vias at the surface, plurality of solder balls (78, 80) with attachment features, plurality of electrical connections between the conductive pads and the plurality of electrical connections between the plurality of conductive pads, the conductors on the bottom surface of the daughter board (see fig. 3), the connector as being an interposer (see figs 2-3). However, Lum's device fails to explicitly disclose the use of the spring contacts. Grabbe's device discloses the use of the spring contacts (see fig. 6). It would have been obvious to having ordinary skill in the art at the time the invention was made to use spring contact such as the one discloses in Grabbe's device for providing reliable connection in Lum's device.

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3. Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lum (EP patent application 0 681 186 A2) in view Grabbe et al (US patent 5,152,695 as applied to claims 1-2, 5-8 above, and further in view of Strid (US patent 4,764,723).

Lum's and Grabbe's devices disclose the aforementioned limitations, but fail to disclose the use of the capacitor with the substrate. Strid's device discloses the use of the capacitor with the substrate (see figs 3-5 or see col. 3). It would have been obvious to having ordinary skill in the art at the time the invention was made to use the capacitor with the substrate such as the one discloses in Strid's device for controlling the lead inductance in Lum's device.

Conclusion

Allowable Subject Matter

4. Claims 3-4 and 9-10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Prior art fails to disclose the connector divided into two parts forming the removable mating connector with the rest of the claims limitations.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jean F. Duverne whose telephone number is (703) 872-9306. The examiner can normally be reached on 9:30-8:00, Monday-Thursday.


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached on (703) 308-2710. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

JFD

9/22/2003



Jean Frantz Dwyer
Primary Examiner
Art Unit 2839